(12) INTERNATIONAL PATENT APPLICATION PUBLISHED IN ACCORDANCE WITH THE PATENT COOPERATION TREATY (PCT) XXX

(19) World Intellectual Property Organization
International Office

(43) International publication date
October 21, 2004 (10/21/2004)

PCT

(10) International publication number
WO 2004/090604 A2

(51) International Patent Classification: G02B 21108

(21) International file number: PCT/EP2004/003156

German

Deutsch

(22) International application date:
March 25, 2004 (3/25/2004)

(25) Language of filing:

(26) Language of publication:

(30) Priority information:
103 17 615.2 April 11, 2003 (4/11/2003) DE

(71) Applicant *(for all designated status, with the exception of US)*: **CARL ZEISS JENA GMBH** [DE/DE]; Carl-Zeiss-Promenade 10, 07745 Jena (DE).

(72) Inventor; and

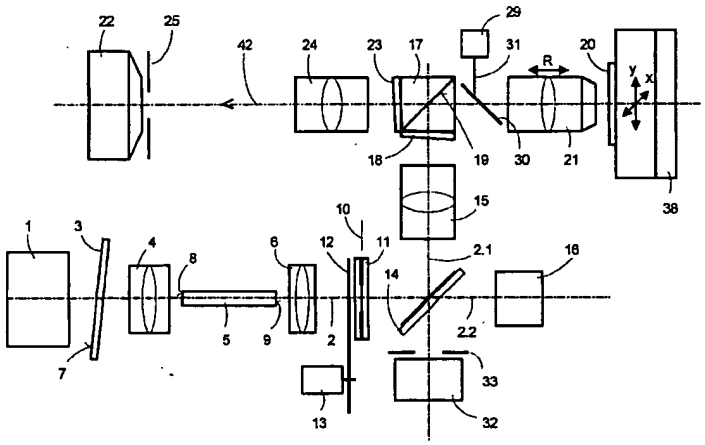
(75) Inventor/applicant *(for US only)*: **WESTPHAL, Peter** [DE/DE]; Kritzegraben 6, 07743 Jena (DE). **KÜHNER, Martin** [DE/DE]; Büttelbaum 72, 07639 Bad Klosterlausnitz (DE). **NEUMANN, Tobias** [DE/DE]; Johannisstrasse 24, 07743 Jena (DE).

(74) Attorney: **NIESTROY, Manfred;** Geyer, Fehners & Partner (G.b.R.), Sellierstrasse 1, 07745 Jena (DE).

(81) Designated states *(unless other specified, for each available national form of protection)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

[continued on the next page]

(54) Title: MICROSCOPE ARRANGEMENT (54)



(57) Abstract: The invention relates to a microscope arrangement which comprises an illumination source (1), optical components for generating an illumination beam path, an objective [lens] (21) through which the illumination beam path is directed onto a sample (20) which is present in the object plane of the objective [lens] (21) or in the proximity thereof, and optical components for generating an imaging beam path directed onto the receiving surface of a camera (22). According to the invention, the microscope arrangement of the aforementioned type is provided with a homogenizing unit (5) for homogenizing the illumination light that is incident on the sample section to be examined. Said homogenizing unit (5) makes it possible to illuminate the object plane of the microscope arrangement and thus the subsection of a sample (20) present in the object plane or in the proximity thereof in a homogeneous manner, thereby improving the quality of reproduction of said sample section and resulting in a higher measuring accuracy and thus in a higher reproducibility.

WO 2004/090604

KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated states** *(unless other specified, for each available national form of protection):* ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CL, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report, and to be republished following receipt of the report

For an explanation of the two-letter codes and other abbreviations, see the Guidance Notes on Codes and Abbreviations at the beginning of each regular issue of the PCT Gazette.